TITLE OF THE ABSTRACT	**IMPACT OF ROUTINE HAEMOSTATIC PARAMETERS AND ROTEM ON THE RISK OF BLEEDING AND TRANSFUSION REQUIREMENTS IN PATIENTS UNDERGOING CARDIOPULMONARY BYPASS SURGERY**
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OBJECTIVES

To establish the correlation between coagulation parameters and the risk of post-operative bleeding in cardiopulmonary bypass surgery and to study the possible associations between clinical variables, bleeding and transfusions

METHODS

112 consecutive patients who underwent open-heart surgery in the hospital, fulfilling study criteria were recruited for this prospective analytical study. Clinical details considered were- age, gender, primary diagnosis, total bypass time and pre-operative anti-thrombotic drugs. Haemoglobin, Platelet count, Prothrombin Time (PT), Activated Partial Thromboplastin Time (aPTT), Fibrinogen and ROTEM (Rotation thromboelastometry) were assessed at 3 different time points – pre-operative, immediate post-bypass and post-operative.

The total blood loss within the first 24 hours and the total units of blood transfused were also recorded. Post–operative chest drain output and intra & post-operative transfusions were the main outcomes considered.

RESULTS

Pre-operative anaemia (18% increased risk, p=0.004), male gender (28% increased risk, p=0.001) and the diagnosis of CAD (102% increased risk, p<0.001) had a strong association with post-operative bleeding in a linear regression model. Only the pre-operative anaemia and post-bypass CT were significant predictors of intra-operative and post-operative transfusion requirements, respectively. There was no significant difference with respect to transfusion requirements between the patients who had normal lab parameters and those who had deranged ones. Hence, the use of all the available haemostatic tests must be done judiciously especially in a setting of limited resources like India. Utility of ROTEM as a guidance tool for transfusion needs more studies to substantiate.

KEYWORDS

cardiopulmonary bypass, coagulopathy, bleeding, chest drain, transfusion, ROTEM